

## Master Syllabus

### RAT 2442 - Radiologic Sciences II

**Division:** Health Sciences

**Department:** Radiologic Technology

**Credit Hour Total:** 4.0

**Lecture Hrs:** 3.0 **Lab Hrs:** 2.0

**Prerequisite(s):** RAT 1241

**Other Prerequisite(s):** AND Restricted to Majors

**Date Revised:** February 2014

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### Course Description:

Principles of digital imaging technology to include applications in exposure formulation, image quality factors and variables, and image management processes. Three classroom, two lab hours per week.

### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

### Course Outcomes:

#### Digital Imaging Modalities

Identify digital applications associated with Computed Tomography and additional imaging modalities.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 71% passing score

#### Quality Image Production

Describe quality image production differentiating between exposure factor selection and image quality factors.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 71% passing score

#### Image Creation

Describe and differentiate between analog and digital image creation.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 71% passing score

#### Image Quality

Differentiate between image characteristics and the impact of related variables.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 71% passing score

#### Image Management and Storage

Describe and differentiate between image management systems and information management systems.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 71% passing score

### Outline:

Exposure Factor Selection, KVP, MAS, Distance, Filtration Image Creation, Analog and Digital  
Image Processing  
Analyzing the Image; density, contrast, recorded detail, distortion  
Image Management; PACS and RIS  
Other Digital Modalities